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| APPLICATION NO.  | FILING DATE                       | FIRST NAMED INVENTOR |                         |                  |
|--|-----------------------------------|----------------------|-------------------------|------------------|
| 10/009,336   | 03/14/2002                        | Seung-Ho Tak         | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
| *  |                                   |                      | 2729-117                | 3879             |
|  | 90 10/21/2004<br>TMAN CH MANI AND |                      | EXAMINER                |                  |
| LOWE HAUPTMAN GILMAN AND BERNER, LLP<br>1700 DIAGONAL ROAD |                                   |                      | BAHTA, ABRAHAM          |                  |
| SUITE 300 /310<br>ALEXANDRIA, VA 22314                     |                                   |                      | ART UNIT                | PAPER NUMBER     |
| ACCAMINDICIA   | , VA 22314                        |                      | 1775                    |                  |
|  |                                   |                      | DATE MAILED: 10/21/2004 |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   | Application No.   | Applicant(s)                |  |  |  |  |
|---|---|-----------------------------|--|--|--|--|
| Office Action Summary   | 10/009,336  | TAK, SEUNG-HO               |  |  |  |  |
| Since Action Summary  | Examiner  | Art Unit                    |  |  |  |  |
| The MAILING DATE CO.  | Abraham Bahta   | 1775                        |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply  |   |                             |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any |   |                             |  |  |  |  |
| Status  |   |                             |  |  |  |  |
| 1) Responsive to communication(s) filed on 04 No  | vember 2003.  |                             |  |  |  |  |
|   | 2a) ☐ This action is <b>FINAL</b> . 2b) ☑ This action is non-final. |                             |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is  |   |                             |  |  |  |  |
| closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.   |   |                             |  |  |  |  |
| Disposition of Claims   |   |                             |  |  |  |  |
| 4)⊠ Claim(s) <u>1-15</u> is/are pending in the application.   |   |                             |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.  |   |                             |  |  |  |  |
| 5) Claim(s) is/are allowed.   |   |                             |  |  |  |  |
| 6)⊠ Claim(s) <u>1-15</u> is/are rejected.   |   |                             |  |  |  |  |
| 7) Claim(s) is/are objected to.   |   |                             |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or   |   |                             |  |  |  |  |
|   |   |                             |  |  |  |  |
| Application Papers  |   |                             |  |  |  |  |
| 9) The specification is objected to by the Examiner.  |   |                             |  |  |  |  |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  |   |                             |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).   |   |                             |  |  |  |  |
| Replacement drawing sheet(s) including the correction   | is required if the drawing(s) is obje                               | cted to See 37 CED 1 121(4) |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  |   |                             |  |  |  |  |
| Priority under 35 U.S.C. § 119  |   |                             |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).   |   |                             |  |  |  |  |
| a) ☐ All b) ☐ Some * c) ☐ None of:  |   |                             |  |  |  |  |
| 1. Certified copies of the priority documents have been received.   |   |                             |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No.   |   |                             |  |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage   |   |                             |  |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).   |   |                             |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.  |   |                             |  |  |  |  |
| assumed Since detailed of the certified copies not received.  |   |                             |  |  |  |  |
|   |   |                             |  |  |  |  |
| Attachment(s)   |   |                             |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)   |   |                             |  |  |  |  |
| Paper No(s)/Mail Date   |   |                             |  |  |  |  |
| 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 11/04/03.  | 5)  | ent Application (PTO-152)   |  |  |  |  |
| 5. Patent and Trademark Office  |   |                             |  |  |  |  |

Application/Control Number: 10/009,336

Art Unit: 1775

#### **DETAILED ACTION**

### Claim Rejections - 35 USC § 112

Claims 2 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, line 13 and claim 9 line 13 the phrase "the one directional" lacks antecedent basis.

In claim 5, line 5 the term "a boom" is not clear. Is this the "boom" recited on line 2 or a second "boom"?

The applicant is requested to review the claims for similar errors and amend the claims.

# Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gan et al (USP 6,090,221) in view of Madsen (USP 1,581,849).

Gan teaches a powered device for cleaning buildings comprising a belt (22) and drive wheels wherein the wheels rotate the belt. The device comprises suction units and a vacuum wherein the vacuum is provided to the suction units via a vacuum pump and vacuum tubing. The reference teaches a valve is associated with each suction head.

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See col. 4, lines 40-63 and col. 5, lines 31-60. Further, the reference teaches the device comprises a spray and cleaning unit which sprays through its nozzle the material needed for treatment of the building. See col. 6, lines 37-40.

The reference does not require the vacuum to be installed to the sides of the wheels; however, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have installed the vacuum of Gan to the wheels, so that the device may travel on a flat plane, an inclined plane, a vertical plane and ceiling and to clean the surface(s) of a tall building. Further it has been held that rearranging parts of an invention involves only routine skill in the art. Absent a showing on unexpected results in using vacuum channels installed to the side of the wheels, no patentable distinction is seen.

Claim 8: The reference does not require rotating brush; however, Madsen '849 teaches a machine comprising an endless belt of vacuum shoes adapted to make vacuum contact with the surface to be cleaned wherein the machine comprises rotating brush. See col. 1, lines 22-36 and col. 4, lines 89-90.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided rotating brush to the device of Gan in order to facilitate and scrub the surface to be cleaned.

# Allowable Subject Matter

Claims 2-7 and 9-15 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abraham Bahta whose telephone number is (571) 272-1352. The examiner can normally be reached on Monday - Friday; 11:30 am - 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A. Bahta 09/30/04

SUPERVISORY PATENT EXAMINER